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| PRE-APPEAL BRIEF REQUEST FOR REVIEW | | Docket Number (Optional) 108298726US | | | | | | | | |
|--|---|---|--|---|---|--|--|---|---|-------------------------------|
| | Application Number 10/687,458- Conf. #8780 | Filed October 15, 2003 | | | | | | | | |
| | First Named Inventor Kubista et al. | | | | | | | | | |
| | Art Unit 1763 | Examiner R. Zervigon | | | | | | | | |
| <p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table border="0"><tr><td><input type="checkbox"/> applicant /inventor.</td><td rowspan="4"> Signature</td></tr><tr><td><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td></tr><tr><td><input type="checkbox"/> attorney or agent of record. Registration number <u>51,945</u></td></tr><tr><td><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. <u>51,945</u></td></tr></table> <table border="0"><tr><td><u>(206) 359-8000</u> Telephone number</td></tr><tr><td><u>August 8, 2006</u> Date</td></tr></table> | | | | <input type="checkbox"/> applicant /inventor. |  Signature | <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) | <input type="checkbox"/> attorney or agent of record. Registration number <u>51,945</u> | <input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. <u>51,945</u> | <u>(206) 359-8000</u> Telephone number | <u>August 8, 2006</u> Date |
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| <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) | | | | | | | | | | |
| <input type="checkbox"/> attorney or agent of record. Registration number <u>51,945</u> | | | | | | | | | | |
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| <u>August 8, 2006</u> Date | | | | | | | | | | |
| <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input checked="" type="checkbox"/> *Total of <u>1</u> forms are submitted.</p> | | | | | | | | | | |



(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: DAVID J. KUBISTA *ET AL.*

APPLICATION NO.: 10/687,458

FILED: OCTOBER 15, 2003

FOR: **SYSTEMS FOR DEPOSITING
MATERIAL ONTO WORKPIECES IN
REACTION CHAMBERS AND METHODS
FOR REMOVING BYPRODUCTS FROM
REACTION CHAMBERS**

EXAMINER: RUDY ZERVIGON

ART UNIT: 1763

CONF. NO: 8780

ARGUMENTS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants submit along with the Notice of Appeal the following arguments for consideration by the conference panel. Applicants respectfully submit that the arguments point out clear errors in the rejection of the claims. Applicants respectfully request reconsideration of this application in view of these arguments.

ARGUMENTS

Applicants' amendment of February 10, 2006 includes a summary of the claims on pages 7 and 8.

In response to applicants' previous amendments, the Examiner has rejected the pending claims under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,736,952 to Schmitt et al. ("Schmitt") and U.S. Patent No. 6,022,483 to Aral ("Aral"). The Examiner recognizes that Schmitt does not teach (1) a throttling valve in the second branchline and (2) a controller operably coupled to the pressure monitor and the throttling valve, the controller having a computer-readable medium containing instructions that cause the controller to perform a method comprising:

- exhausting byproducts from the reaction chamber through the first trap in the first branchline;
- determining the pressure difference across the first trap caused by a flow of the byproducts by monitoring the pressure monitor;
- dynamically controlling the flow of byproducts into the second trap in the second branchline by regulating the throttling valve; and
- maintaining the pressure differential across the first trap in the mainline based on the determined pressure difference.

(Office Action, May 8, 2006, page 5)

To remedy these deficiencies, the Examiner cited Aral as disclosing a wafer processing apparatus including an exhaust control apparatus that controls an exhaust throttling valve. (Office Action, May 8, 2006, page 5)

The issue here is whether the Examiner's basis for finding a *prima facie* case of obviousness based on Schmitt and Aral is proper. The applicants respectfully submit that the Examiner has clearly erred in finding a *prima facie* case of obviousness because (1) the asserted motivation to modify Schmitt's teachings destroys the purpose of the bypass trap in Schmitt; and (2) the combined teachings of Schmitt and Aral do not teach or suggest all the limitations of the pending claims.

First, the Examiner's assertion of suggestion or motivation to modify Schmitt's teachings would destroy the purpose of Schmitt's bypass trap because the proposed modification would change the principle of operation of Schmitt's system. Schmitt discloses a bypass trap parallel to a primary trap to allow continuous operation of the CVD process while the primary trap is being serviced. Thus, the bypass trap in Schmitt is designed to operate as a backup for the primary trap as opposed to operating concurrently with the primary trap during normal operation. If Schmitt's bypass trap were used with Aral's throttling valve to maintain a desired pressure drop across the primary trap while operating concurrently with the primary trap, as the Examiner suggests, the pressure differential across the primary trap would not exceed the selected threshold until both the primary trap and the bypass trap contain sufficient byproducts that they both would need to be serviced. As a result, the proposed modification to the CVD system of Schmitt would require both the primary trap and the bypass trap to be shut down at the same time such that Schmitt's CVD system would not operate continuously. Thus, the proposed modification to Schmitt's system would change the principle of operation of the system from a continuous primary-backup operation to a batch operation in direct contrast to the stated purpose of Schmitt.

Moreover, the Examiner has clearly erred in finding that the combined teachings of Schmitt and Aral disclose or suggest all the claim limitations of the pending claims. If the teachings of Schmitt and Aral were combined, the resulting system would include Aral's exhaust throttling valve at the discharge of Aral's process chamber upstream of Schmitt's primary and bypass traps. The resulting system still would not disclose or suggest "a throttling valve in the second branchline" as recited in the pending claims.

Further, the resulting system would not teach or suggest a controller that includes a computer-readable medium containing instructions that cause the controller to perform a method that includes "dynamically controlling the flow of byproducts into the second trap by regulating the throttling valve." As discussed above, Schmitt teaches operating only one trap at a time. Thus, the exhaust from the process chamber still would not be admitted into the bypass trap because "[d]uring operation, . . . the bypass inlet valve and the bypass outlet valve are closed," according to Schmitt.

In addition, the resulting system would not teach or suggest a controller that includes a computer-readable medium containing instructions that cause the controller to perform a method that includes "maintaining the pressure differential across the first trap in the mainline within a desired range based on the monitored pressure difference." Instead, Aral teaches monitoring and maintaining the pressure (instead of a pressure difference) in the process chamber based on the monitored process chamber pressure, and Schmitt discloses monitoring whether the pressure differential exceeds a threshold. Thus, the resulting system would include a controller that maintains the pressure in the process chamber based on the monitored process chamber pressure and monitors the pressure differential across the traps, but does not maintain the pressure differential across the traps.

Accordingly, Schmitt and Aral cannot support a *prima facie* case of obviousness over the pending claims. In view of these errors, applicants respectfully request reconsideration of this application.

Dated: 8/8/06

Respectfully submitted,

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